



1947: Los Angeles Air Pollution Control District founded; nation's first air pollution control agency. **1954:** Heavy smog shuts down "blow-by" valve on new car engines to recycle crankcase gases. Cost per car: \$7. **1962:** Rachel Carson's bestselling book *Silent*

CLEAN AIR

Clearing the West's magnificent vistas

Since the advent of “smog” in Los Angeles in the 1940s, it’s been no secret that the Pacific Southwest is home to some of America’s most polluted air. But fortunately, the region has been anything but complacent in responding to this public health hazard. In fact, for more than 50 years, California has been a global trend-setter in developing programs which dramatically reduce air pollution without harming the state’s economy. Some would argue that cleaning the air actually helps businesses from Los Angeles to Phoenix maintain a quality of life which is critical to keeping the Pacific Southwest a superior place to live and work.

A new era for air

Normally, most city boosters like to be “number one. But Los Angeles was only too glad to relinquish its long-standing title as America’s smoggiest city to Houston, which in 1999 had the highest peak concentrations of smog.

This changing of the guard was symbolic of broader beneficial air quality trends over the last three decades across the Pacific Southwest – thanks to the Clean Air Act, strong working partnerships between EPA and state and local agencies like the California Air Resources Board, and tools like automobile smog checks, cleaner burning gasoline, and tough tailpipe standards.

Consider the results: In the region’s six most populous regions (South Coast, Bay Area, San Joaquin Valley,

San Diego, Sacramento and Phoenix), peak air pollution concentrations declined dramatically over the last 30 years: 99% for lead; 72% for sulfur dioxide, 66% for carbon monoxide and 42% for nitrogen dioxide. Ozone, the key ingredient of smog, was cut by 52% region-wide and even more in Southern California (70% on the South Coast and 66% in San Diego).

And there’s more: toxic air emissions from major sources (such as chrome plate finishers) have been reduced by as much as 90 percent; sulfur dioxide emissions from copper smelters along the Nevada and Arizona border are down by 94 percent; and smog alerts have been eliminated in the Los Angeles area (down from more than 100 a year in the 1970s). All of these results occurred despite enormous growth rates, when population grew nationally by 27 percent, the economy grew by 90 percent and vehicle miles travelled jumped by 111 percent.

Yet for all the cleaner skies, much more remains to be done. Metropolitan areas across the Pacific Southwest continue to face exploding populations, spreading cities and increased dependence on automobiles. Los Angeles still has a serious smog problem. California’s San Joaquin Valley, along with Las Vegas and Phoenix, continue to exceed federal standards for particulate matter – fine dust particles which can severely harm the lungs of children and the elderly.

In 1999, EPA worked at several levels to address these problems. Nationally, EPA worked to improve our air

protection technologies. In December, EPA Administrator Carol Browner joined President Clinton in announcing strong new standards for **controlling harmful tailpipe emissions**. For the first time, sports utility vehicles, light trucks and mini-vans will meet the same low tailpipe emissions required for passenger cars. In tandem, EPA proposed **new standards for cleaner gasoline**.

Because of these initiatives, here's what Americans *won't see* in coming years: 50 million tons of smog-causing pollution; 260,000

asthma attacks in children; 4,300 premature deaths and 173,000 respiratory-related illnesses.

Moving to the regional level, EPA and a host of unlikely partners made major progress on behalf of everyone who breathes. In **Southern California**, EPA facilitated the landmark settlement of a lawsuit brought by environmental groups against the regional air district, culminating in an aggressive and innovative plan to clean up Los Angeles' smog over the next decade. The settlement closes out 25 years of litigation associa-

ed with Southern California's smog problem and enables the region to focus on its pioneering work on air toxics and environmental justice.



Despite the Pacific Southwest's galloping growth over the last 30 years, air pollutants decreased dramatically across the region, from 52 percent for ozone to 99 percent for lead.



Further north of Los Angeles lies the **Owens Valley**. Despite its remote location and small population, the valley and its residents suffer the worst particulate air pollution in the United States, caused by severe dust storms. The dust is whipped up every winter by winds along the valley floor – once a huge lakebed which was exposed when Los Angeles diverted the mountain streams that replenished Owens Lake. Due to the dogged determination of the local air district, local tribes (including the Lone Pine-Paiute/Shoshone, Fort Independence and Bishop tribes), Los Angeles officials, and EPA staffers, an agreement was reached that will cover the lakebed with water, vegetation, sand fences, and possibly gravel – and end one of the gravest public health threats in the West.



A smog inversion layer blanketing downtown Los Angeles in 1956. Although LA still suffers from some of the nation's worst smog, air pollution has been cut by more than two-thirds since this photo was taken.

Outside of California, there was also good news. In **Phoenix**, EPA put in place an interim plan to reduce the dust from unpaved roads, vacant lots, and agricultural activities to protect public health. Meanwhile, state and local officials are developing long-range measures to control this “fugitive dust.”

And for those who love the **Grand Canyon**, 1999 was an exceptional year. Midway through the year, a scrubber system was finally installed on the coal-fired **Navajo Generating Station** near Page, Arizona. The result of a federal clear air plan, the \$420 million system will cut sulfur dioxide (SO₂) emissions at the plant by 90 percent and reduce the haze which frequently obscures views of the canyon.

Later in 1999, EPA assisted in settlement negotiations to clean up SO₂ emissions from the **Mohave Power Plant**, west of the canyon. EPA and the Department of Interior believe that the 85 percent reduction in these emissions will help bring the Grand Canyon back to its full visual glory.

These accomplishments are a great addition to the historic agreement of 1996, when the Grand Canyon Transport Visibility Commission – comprised of states, tribes and federal agencies like EPA and Interior – agreed to improve visibility at the canyon, working with public interest and business groups. The work continues through the **Western Regional Air**



Improvements in the Clean Air Act will help prevent more than 1.7 million asthma attacks by 2010.

Partnership, expanded to 10 states and 10 tribes working on a host of regional air issues.

Promising technologies

Beyond these “big fixes,” continues to help advance new technologies to help businesses and individuals achieve the millions of small fixes that will keep the air

clean, from promoting simple water-based (rather than chemical) solvents – which reduce hydrocarbon emissions – to proposing far cleaner diesel fuels. EPA has played a major role through our permitting and advisory efforts to facilitate the use of high tech combined-cycle electric generating equipment with advanced pollution controls at industrial facilities.

The equipment, which combines a gas turbine and waste heat boiler, reduces air pollution from 50 to 99 percent and cuts energy consumption by up to 30 percent, resulting in cleaner skies and big savings for the operators. In the Pacific Southwest alone, this equipment is being installed at more than 50 facilities.



Near the Grand Canyon, two coal-fired electricity generating plants are reducing their air emissions by 85 to 90 percent, helping to clear the haze above this national treasure.